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PS

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/381,400 02/03/00 MIYAKI

Y 843.37610X00

020457 MM41/0913
ANTONELLI TERRY STOUT AND KRAUS
SUITE 1800
1300 NORTH SEVENTEENTH STREET
ARLINGTON VA 22209

EXAMINER

WILLIAMS, A

ART UNIT

PAPER NUMBER

2826

DATE MAILED:

09/13/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/381,400

Applicant(s)

MIYAKI ET AL.

Examiner.

Alexander O Williams

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-- Th MAILING DATE of this communication app ars on th cover sh et with th correspondence addr ss --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 8-11 and 13-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-21 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Serial Number: 09/381400 Attorney's Docket #: 843.7610X00

Filing Date: 2/3/00;

Applicant: Miyaki et al.

Examiner: Alexander Williams

Applicant's Election of Group I (claims 1 to 7 and 12) in Paper # 9, filed 6/22/01, has been acknowledged.

Claims 8 to 11 and 13 to 21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 9.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claims 12 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 12, line 8, "said resins" lacks antecedent basis. Should this be "resins" and should these resins be the same resins in the remaining portion of the claim? Where are these "resins"?

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application

by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2, 4 to 7 and 12, **insofar as claim 12 can be understood**, are rejected under 35 U.S.C. § 102(e) as being anticipated by Kajihara et al. (U.S. Patent # 5,637,913).

For example, in claim 1, Kajihara et al. (**figures 1 to 32**) specifically figure 30 show a semiconductor device **30** sealing the die pad **3** and a semiconductor chip **2** mounted on it with a resin (inheret), characterized in that the main surface of the semiconductor chip is covered by a layer of organic material (**top of 2**) and an outward appearance of the die pad is smaller than that of the semiconductor chip.

In claim 12, Kajihara et al. (**figures 1 to 32**) specifically figure 30 show a semiconductor device **30** sealing a semiconductor chip **2**, covering a passivation film of the inorganic insulation materials (**top of 2**) formed on a top of layer of conductive wirings **25** with an layer of organic material, and a die pad **3**, whose an outward appearance is smaller than that of said semiconductor chip and which is mounted on

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said semiconductor chip, characterized in that said layer of organic material and said resins make an interface in a main surface side of said semiconductor chip sealed by said resins **29**, and that said semiconductor chip and said resins make an interface except of an area with which said semiconductor chip and said die pad in a back surface side of said semiconductor chip overlap.

Claims 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kajihara et al. (U.S. Patent # 5,637,913) in view of Yamamoto (Japan Kokai # 63-271939).

Kajihara et al. Show the invention as detailed above, but fail to explicitly show the layer of organic material is made of photosensitive polyimide resins.

Yamamoto et al. Is cited for showing a semiconductor device. Specifically, Yamamoto (**figures 1 to 5**) specifically figure 1d discloses the layer of organic material is made of photosensitive polyimide resins **4** for the purpose of providing a photolithography process that can be finished at one time at the time of opening of the electrode part.

Therefore, it would have been obvious to one of ordinary skill in the art to use Yamamoto's photosensitive polyimide organic film to modify Kajihara et al.'s organic film for the purpose of providing a photolithography process that can be finished at one time at the time of opening of the electrode part.

The listed references are cited as of interest to this application, but not applied at this time.

Field of Search	Date
U.S. Class and subclass: 257/676,666,678,684,692,693,700,701,797,787	9/6/01
Other Documentation: foreign patents and literature in 257/676,666,678,684,692,693,700,701,797,787	9/6/01
Electronic data base(s): U.S. Patents EAST	9/6/01

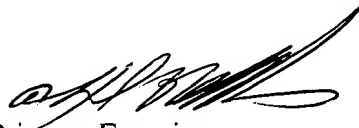
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Papers related to this application may be submitted to Technology Center 2800 by facsimile transmission. Papers should be faxed to Technology Center 2800 via the Technology Center 2800 Fax center located in Crystal Plaza 4-5B15. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center 2800 Fax Center number is (703) 308-7722 or 24. Only Papers related to Technology Center 2800 APPLICATIONS SHOULD BE FAXED to the GROUP 2800 FAX CENTER.

Any inquiry concerning this communication or any earlier communication from the examiner should be directed to ***Examiner Alexander Williams*** whose telephone number is ***(703) 308-4863***.

Any inquiry of a general nature or relating to the status of this application should be directed to the ***Technology Center 2800 receptionist*** whose telephone number is ***(703) 308-0956***.

9/8/01


Primary Examiner
Alexander O. Williams